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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,015	12/21/2001	Rama Akella	2103.000500	1147

45488 7590 12/26/2006
WILLIAMS, MORGAN & AMERSON
10333 RICHMOND, SUITE 1100
HOUSTON, TX 77042

EXAMINER

KAM, CHIH MIN

ART UNIT	PAPER NUMBER
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1656

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/26/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/027,015

Applicant(s)

AKELLA ET AL.

Examiner

Chih-Min Kam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,20,21,23-29,31,32 and 34-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-6,23-29 and 34-40 is/are allowed.
- 6) ☒ Claim(s) 20,21,31 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/28/05;11/15/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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DETAILED ACTION

Status of the Claims

1. Claims 1, 2, 4-6, 20, 21, 23-29, 31, 32 and 34-40 are pending.

Applicants' amendment and response filed October 18, 2006 is acknowledged.

Applicants' response has been fully considered. Claims 2, 4, 5, 20, 21 and 29 have been amended, and claims 3, 22 and 33 have been cancelled. Therefore, claims 1, 2, 4-6, 20, 21, 23-29, 31, 32 and 34-40 are examined.

A proposed Examiner's amendment was faxed to the applicant on December 15, 2006, however, this proposed amendment was not accepted.

Withdrawn Claim Objections

2. The previous objection to claim 3 is withdrawn in view of applicant's cancellation of the claim, and applicant's response at page 6 of the amendment filed October 18, 2006.

Withdrawn Claim Rejections - 35 USC § 112

3. The previous rejection of claims 2, 4, 23-29 and 33 under 35 U. S. C. 112, first paragraph, written description, is withdrawn in view of applicant's amendment to the claim, applicant's cancellation of the claim, and applicant's response at pages 5-6 of the amendment filed October 18, 2006.

4. The previous rejection of claims 29-33 under 35 U. S. C. 112, second paragraph, is withdrawn in view of applicant's amendment to the claim, applicant's cancellation of the claim, and applicant's response at page 6 of the amendment filed October 18, 2006.

New Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 20, 21, 31 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 20, 21, 31 and 32 are indefinite because the independent claim (claim 2 or 29) recites at least one angiogenic peptide selected from the group consisting of bone-derived angiogenic proteins (BDAPs), vascular endothelial cell growth factor (VEGF),..... (TNF- α)", which is a closed language, however, the dependent claim, e.g., claim 20, recites "said at least one angiogenic peptide comprises bone-derived angiogenic proteins (BDAPs)", which is an opened language and does not conform the limitation of the independent claim.

Maintained Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 20-21 and 31-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 20-21 and 31-32 are directed to an angiogenic composition comprising the isolated peptide sequence of GGIGDGG (SEQ ID NO:2) and at least one angiogenic peptide,

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optionally with a matrix material, wherein the at least one angiogenic peptide comprises bone-derived angiogenic proteins (BDAPs) or vascular endothelial cell growth factor (VEGF). While the specification discloses an angiogenic composition comprising at least one of the peptides of SEQ ID NO:1-6 and Formula 1 (ZZIGDZZ, Z is any of the twenty amino acids), and at least one angiogenic growth factor such as BDAP, BMP, VEGF, bFGF, angiogenin, EGF, PDGF, TGF- α , TGF- β and TNF- α (page 4, lines 24-32), it does not disclose any angiogenic peptide comprising BDAPs, VEGF. The specification only discloses the sequence of SEQ ID NO:1 and 2 exhibiting angiogenic activity (Examples 1-3), it does not describe a genus of variants for angiogenic peptides or proteins (with different length or sequence) comprising BDAPs or VEGF. A species of the peptides of BDAPs or VEGF does not provide sufficient written description for a genus of angiogenic peptides comprising BDAPs or VEGF. The lack of description on the angiogenic peptides or proteins comprising BDAPs or VEGF and the lack of representative species as encompassed by the claims, applicants have failed to sufficiently describe the claimed invention, in such full, clear, concise terms that a skilled artisan would not recognize applicants were in possession of the claimed invention.

Response to Arguments

Applicants indicate claim 2, as amended, recites limitations previously recited by dependent claim 3, which was not the subject of a rejection. Claim 29, as amended, recites limitations previously recited by dependent claim 30, which was not the subject of a rejection. Therefore, claims 2 and 29, as well as all claims dependent thereon, comply with the written description requirement and request this rejection be withdrawn (page 6 of the response).

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Applicants' response has been considered, regarding claims 2 and 29 and some of dependent claims, the arguments are persuasive and the rejection is withdrawn. However, regarding claims 20, 21, 31 and 32, the arguments are not persuasive because these claims encompass the angiogenic peptides comprising BDAPs or VEGF, which are described in the specification as indicated in the section above. Thus the rejection is maintained.

Conclusion

8. Claims 20, 21, 31 and 32 are rejected. It appears that claims 1, 2, 4-6, 23-29 and 34-40 are free of art.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

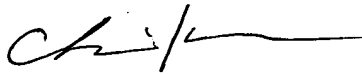
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (571) 272-0948. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleen Bragdon can be reached at 571-272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chih-Min Kam, Ph. D.
Primary Patent Examiner



CHIH-MIN KAM
PRIMARY EXAMINER

CMK

December 20, 2006